STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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C. L. "BUTCH" OTTER, GOVERNOR
TONI HARDESTY, DIRECTOR

September 19, 2007

Chris Johnson
CJ Environmental
Pollock, Idaho

RE: Modeling Protocol for the Bennett Lumber Products Facility Located near Princeton Idaho

Dear Mr. Johnson:

DEQ received your dispersion modeling protocol on September 4, 2007. The modeling protocol was submitted on behalf of Bennett Lumber Products (BLP). The modeling protocol proposes methods and data for use in revising the ambient impact analyses of a Permit to Construct application for a modification to an existing facility for a facility-wide production throughput increase and an increase in the PM_{10} emission limit for the hogged fuel boiler. The modeling analyses submitted under this protocol will entirely replace the modeling analyses for the original PTC application received on June 11, 2007.

The modeling protocol has been reviewed and DEQ has the following comments:

- Comment 1: The protocol provides tabular documentation and narrative justification for stack parameters used in the modeling analyses. All six process material handling units consisting of five cyclones and a baghouse are now understood to exhaust horizontally or with the exhaust impeded by a raincap. This information needs to be presented on an emission point-specific basis, not a general statement.

- Comment 2: DEQ accepts BPL's assertions supporting the ambient air boundary described in the modeling protocol in Section 5—Model Domain, Mapping, and Receptor Network. This section states, in part, that "the entire perimeter of the facility is fenced or gated." This is an appropriate measure for deterring public access from the area you have defined as the facility property.

  Comments made by BLP during the September 5, 2007 conference call between representatives for BLP, CJ Environmental, and DEQ indicated that no trespassing signs are located on the banks of the Palouse River where the river crosses the facility perimeter. Please include this statement in your ambient air boundary determination description in the permit application's modeling report.

  In the event the State of Idaho Department of Lands formally includes this section of the Palouse River on its list of "navigable rivers" BLP's ambient air boundary will need to be updated to include the river as ambient air for the purposes of demonstrating compliance with applicable National Ambient Air Quality Standards. Also, in the event a member of the public successfully challenges BLP's claim to this section of the Palouse River through the appropriate legal means under the State of Idaho Fish and Game

Recreational Trespass statutes, the ambient air boundary will need to include this section of the Palouse River as ambient air for NAAQS compliance.

- Comment 3: This is not a modeling protocol issue, but rather a permit application issue. Many of the items DEQ has asked for documentation in the modeling analysis are addressed in the application forms for the modeling demonstration. These forms can be obtained from the following website address:

  http://www.deq.idaho.gov/air/permits_forms/forms/ptc_forms_MI_07Apr05.xls

  These forms are supposed to be used in all permit applications. DEQ's goal is to obtain the information needed for review of the inputs for the modeling demonstration in the permit application itself. This is intended to decrease the amount of dialogue between DEQ and the permittee during the review process, and should also decrease the amount of time and effort that has historically been expended in gaining this data. If you do not wish to fill out the forms for the modeling section, and a previous agreement was made between you and DEQ that the new streamlined application forms do not need to be filled out for this project, all information requested in the forms must be presented in your table or your discussion on an emission unit/release point-specific basis. You will notice that many of the items that DEQ requests elaboration on are included as data entry cells in these forms.

DEQ's modeling staff considers the submitted dispersion modeling protocol, with resolution of the additional items noted above, to be approved. It should be noted, however, that the approval of this modeling protocol is not meant to imply approval of a completed dispersion modeling analysis. Please refer to the *State of Idaho Air Quality Modeling Guideline*, which is available on the Internet at http://www.deq.state.id.us/air/permits_forms/permitting/modeling_guideline.pdf, for further guidance.

To ensure a complete and timely review of the final analysis, our modeling staff requests that electronic copies of all modeling input and output files (including BPIP, and AERMAP input and output files) are submitted with an analysis report if a different dataset than provided to you by DEQ is used for this project.. If you have any further questions or comments, please contact me at (208) 373-0536.

Sincerely,

Darrin Mehr
Air Quality Analyst
Idaho Department of Environmental Quality

1 Purpose

This Protocol describes the analysis estimating impacts of facility criteria pollutant emissions, and the increase in TAPs emissions on ambient air quality impact as a result of the proposed action. The results of the modeling analyses are shown to demonstrate those impacts do not exceed any applicable ambient air quality impact limits. The protocol describes the complete modeling analysis, including results, so is also effectively the draft modeling report. This analysis updates the analysis provided to IDEQ in the Bennett Lumber Products (BLP) June, 2007 permit application slightly to respond to IDEQ comments on that modeling analysis and the permit application.

The increase in emissions associated with the PTC application comes from an increase in kiln and facility throughput and allowable PM-10 emission rate from the boiler. All emission sources would remain unchanged from current and preciously permitted locations and regulatory identifications. The facility property boundary will serve as the ambient air quality boundary, as in previous IDEQ-approved modeling analyses. A thorough defense of the ambient air boundary is included in Section 5 describing the Modeling Domain and model layout.

Analyses have been prepared for all criteria pollutants to document that impacts from the facility's emissions of those pollutants do not cause or significantly contribute to an exceedance of NAAQS standards. Analyses were also prepared for all TAPs emitted over IDAPA 585 or 586 EL thresholds to demonstrate that the increase of emissions as a result of the proposed action would not lead to ambient air quality impacts above IDAPA 585 AAC or 586 AACC impact limits. Air dispersion modeling was conducted in accordance with EPA's *Guideline on Air Quality Models* and IDEQ's *Air Quality Modeling Guideline*, consistent with an IDEQ-approved modeling protocol.

2 Model Description / Justification

Consistent with the IDEQ-approved modeling protocol, the model chosen was AERMOD, the United States Environmental Protection Agency (USEPA)–approved dispersion model. AERMOD, one of the most frequently used regulatory dispersion models in the United States since it replaced ISCST3 in EPA guidance, is the most appropriate of the EPA-approved models given the site's physical characteristics and the variety of facility emission sources. The sophisticated Prime building downwash algorithm was conservatively applied for the Bennett Princeton facility even though the ambient air boundary for this facility begins multiple building lengths from any onsite building. The model was applied as recommended in EPA's *Guideline on Air Quality Models* (2001), utilizing that document's regulatory default options and the simple and complex terrain options and other input settings consistent with State of Idaho Air Quality Modeling Guideline. The modeling of the facility dry kilns with pseudo-stacks that approximate actual exhaust velocity is consistent with that that recommended and approved in 2005 by IDEQ in the analysis for the PTC approving the 7th facility dry kiln.

3 Facility Emissions

Facility-wide emissions are documented in the BLP 0907 EI.xls spreadsheet accompanying this report. That emission inventory, included with this submittal, documents how all proposed emission rates were calculated, and cross references all emissions in the emission inventory to modeled sources on the last worksheet, BLP 0907 Model Data. As discussed in Section 1, increased throughput proposed for the dry kilns would drive an increase in throughput facility-wide. The proposed action also includes an increase in the allowable PM-10 emission rate from the facility boiler. Therefore, short term and annual emission rates were calculated for all emission sources at the facility, and the modeling includes impact

assessments for all pollutants (criteria and TAP) emitted above IDEQ modeling thresholds, for all averaging periods ambient air quality impact limits exist.

For all impact analyses for averaging periods less than one year, all facility emission sources were conservatively assumed to operate continuously. This assumption overestimates the emissions from all processes that do not operate continuously because the hourly maximum emission rates for those sources were calculated from annual throughput based upon a lower number of hours of operation. This overly conservative assumption should assure that the actual facility impacts will be well below allowable levels. Annual average impact analyses include emission rates consistent with the maximum PTE documented in the facility emission inventory.

4 Model Source Data

Sources included in the modeling include all emission sources documented in the emission inventory for all pollutants except VOCs. All point sources were depicted with actual stack data, except the dry kilns. Stack data (height, orientation, presence of physical blockage, exhaust flow, and/or temperature) for all stacks other than the boiler were checked in the field by plant engineer Jeff Abbott. Mr. Abbot purchased a heavy duty CFM thermal anemometer to make those data checks. The dry kilns were depicted in the model exactly as IDEQ recommended and approved for the facility's 2005 PTC analysis, as pseudo-stacks with wide diameters and exhaust flow rates matching the volume of actual kiln fan-driven exhaust rates. Actual emissions from the seven facility dry kilns exhaust from six to eight vents on each side of each kiln. The model kiln sources are identified with the source names as KILNab, where a is the kiln number (1 to 7, from east to west), and b is N represents the northernmost representative stack, T represents the central representative stack, and S represents the northernmost representative stack. The modeled boiler stack parameters were taken directly from the most recent source test, performed on June 2006 and reported to IDEQ. The steaming rate during that source test was consistent with the annual steaming rate requested, and within 20% of the requested maximum steaming rate which also represents the equipment capacity. The boiler will have to operate at that rate to meet proposed allowable production.

All pollutants emitted only from the boiler stack (NOx, SO_2, CO, and all TAPs except acetaldehyde and formaldehyde) were modeled as a normalized emission of 1 lb/hr using the pollutant identification BOILER. Actual predicted maximum impacts were calculated by multiplying the model predicted maximum impact for the appropriate averaging period by the proposed emission rate (in lbs/hr). Those calculations can be seen on the BLP 0907 EI.xls spreadsheet on the right side of worksheet Boiler HAPs for those pollutants, and on the bottom of worksheet Boiler for criteria pollutants.

The facility fugitive emissions were modeled as three specific area source (the P21 target box and P23, the facility Wood Debris Management Area, and YARDFUGS for log yard fugitives) and four volume sources. Those volume sources represented grouped fugitive emissions from process, storage, and transfer operations in four separate activity areas: the fugitives from the hog area, from the boiler and boiler fuel storage area, from the chip and shavings truck bin area, and from the bark and sawdust truck bin area. The BLP 0907 EI.xls spreadsheet worksheets Transfers and St Storage and BLP 0907 Model Data explicitly show that each emission point was modeled, and which volume or area source it was included in. Those volume sources are located in close proximity to the sawmill, boiler, and/or debarker buildings. Each modeled fugitive source except the wood debris management area is less than 150 feet in diameter, and located at least 1000 feet from the ambient air boundary. The source parameters for the four volume sources and the log yard area source are based upon the horizontal area over which the numerous transfer (conveyors and drops) and storage points (enclosed truck bins and/or storage piles) occur. Theses sources mostly represent potential release points for the pneumatic system and/or physical processes that conveys wood by-products generated at the sawmill and planer to truck bins or to the boiler

via the hog in these areas and the small percentage of unusable by-product to final disposition. Horizontal dimensions range from to 50 feet around the2 sets of two truck bins (bark and sawdust, and chips and shavings) to 125 feet near the boiler (to account for fuel piles and transfers to/from). The vertical dimensions of the four volume sources are based upon the heights of the building(s) in the immediate vicinity of the transfer and storage emission areas. The YARDFUGS vertical dimension is low, based upon wind erosion from the log yard.

Model point source parameters were prepared by Chris Johnson of CJ Environmental and verified with data and support from the Bennett Lumber facility staff.

Table 1 shows the model source parameters for all model sources and all criteria pollutants modeled.

Table 1 ISCST3 Model Source Data

POINT SOURCES		Easting (X)	Northing (Y)	Base Elev	Stk Ht	Temp	Exit Vel	Stk Diam	PM_TEN	FORMALD	ACETALD	BOILER
Source ID	Source Description	(m)	(m)	(m)	(ft)	(°F)	(fps)	(ft)	(lb/hr)	(tpy)	(tpy)	(lb/hr)
HFBOILER	hog fuel boiler	517394	5195717	772	50.0	250.0	76.0	3.6	27.00	0.4260	0.0804	1
KILN5N	kiln pseudo stack	517305.95	5195962.23	773	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN3N	kiln pseudo stack	517322.32	5195962.23	773.27	28.5	170.0	22.1	3.5	0.0285	0.0032	0.0060	
KILN1N	kiln pseudo stack	517338.68	5195962.23	773.57	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN5T	kiln pseudo stack	517305.95	5195956.62	773	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN3T	kiln pseudo stack	517322.32	5195956.62	773.32	28.5	170.0	22.1	3.5	0.0285	0.0032	0.0060	
KILN1T	kiln pseudo stack	517338.68	5195956.62	773.56	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN5S	kiln pseudo stack	517305.95	5195951.02	773	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN3S	kiln pseudo stack	517322.32	5195951.02	773.31	28.5	170.0	22.1	3.5	0.0285	0.0032	0.0060	
KILN1S	kiln pseudo stack	517338.68	5195951.02	773.56	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN6S	kiln pseudo stack	517300.5	5195951.02	773	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN4S	kiln pseudo stack	517316.86	5195951.02	773	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN2S	kiln pseudo stack	517333.23	5195951.02	773.47	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN6N	kiln pseudo stack	517300.5	5195962.23	773	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN4N	kiln pseudo stack	517316.86	5195962.23	773	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN2N	kiln pseudo stack	517333.23	5195962.23	773.46	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN6T	kiln pseudo stack	517300.5	5195956.62	773	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN4T	kiln pseudo stack	517316.86	5195956.62	773	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN2T	kiln pseudo stack	517333.23	5195956.62	773.47	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN7N	kiln pseudo stack	517347.96	5195962.23	773.73	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN7T	kiln pseudo stack	517347.96	5195956.62	773.68	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
KILN7S	kiln pseudo stack	517347.96	5195951.02	773.69	28.5	170.0	22.1	3.5	0.0570	0.0063	0.0121	
P7	sawdust cyclone +P4 P6	517404	5195717	772	59.0	68.0	0.0	0.0	0.135			

P11	shavings cyclone	517302	5195800	772.42	60.0	68.0	0.0	0.0	0.19			
P12	shavings cyclone	517302	5195800	772.42	75.0	68.0	0.0	0.0	1.576			
P13	shavings cyclone	517365	5195740	772	52.0	68.0	0.0	3.2	1.092			
P14	shavings cyclone	517415	5195717	772	60.0	68.0	0.0	0.0	0.515			
P24	baghouse	517422	5195763	772.6	19.0	68.0	0.0	1.0	4.00E-05			

AREA SOURCES		Easting (X)	Northing (Y)	Base Elevation	Rel Ht	East Length	North Leng	Vert Dim	PM_TEN	FORMALD	ACETALD	BOILER
Source ID	Source Description	(m)	(m)	(m)	(ft)	(ft)	(ft)	(ft)	(lb/hr)	(tpy)	(tpy)	(lb/hr)
P23	Land app ash	517542.6	5195496.0	784.3	1.0	250	100	3.0	0.153			
yardfugs	Log yard fugitives	517250.6	5195640.0	784.3	1.0	125	60	4	0.024			

Source ID	Source Description	Easting (X)	Northing (Y)	Base Elev	Rel Ht	Horiz Dim	Vert Dim	PM_TEN	FORMALD	ACETALD	BOILER
		(m)	(m)	(m)	(ft)	(ft)	(ft)	(lb/hr)	(tpy)	(tpy)	(lb/hr)
HOGFUGS	Hog area fugitives	517443.0	5195762.0	773.0	0.9	34.9	20.5	0.431			
BKSDFUGS	Bark sawd bin fugitives	517355.3	5195731.5	772.0	3.1	23.3	19.5	0.487			
CHSHFUGS	Chip shavs bin fugitives	517407.0	5195728.5	772.0	3.1	23.3	19.5	0.508			
BLRFUGS	boiler area fugitives	517425.0	5195699.5	772.0	2.1	58.1	19.5	0.185			
P21	target box	517438.0	5195748.0	772.4	7.9	2.8	16.3	0.788			

All facility buildings within GEP distance / height ratios were included in the model as potential sources of downwash. Actual building heights were verified and used. The buildings modled includ the sawmill and all structures around the points of release, but not the low office and maintenance shop well north of all emission points or other small sheds not tall enough to trigger downwash.

Figure 1 shows the locations of the sources within the Bennett Lumber facility, along with the facility buildings. All model sources are identified in red. The kilns are at the top of the figure, where solid red indicates the overwriting of the 21 model kiln source names. P23 to the southwest represents the facility Wood debris management area. The stack sources, P21, and the representative volume sources are south of the sawmill.

Figure 1 Bennett Lumber, Princeton Buildings and Emission Sources

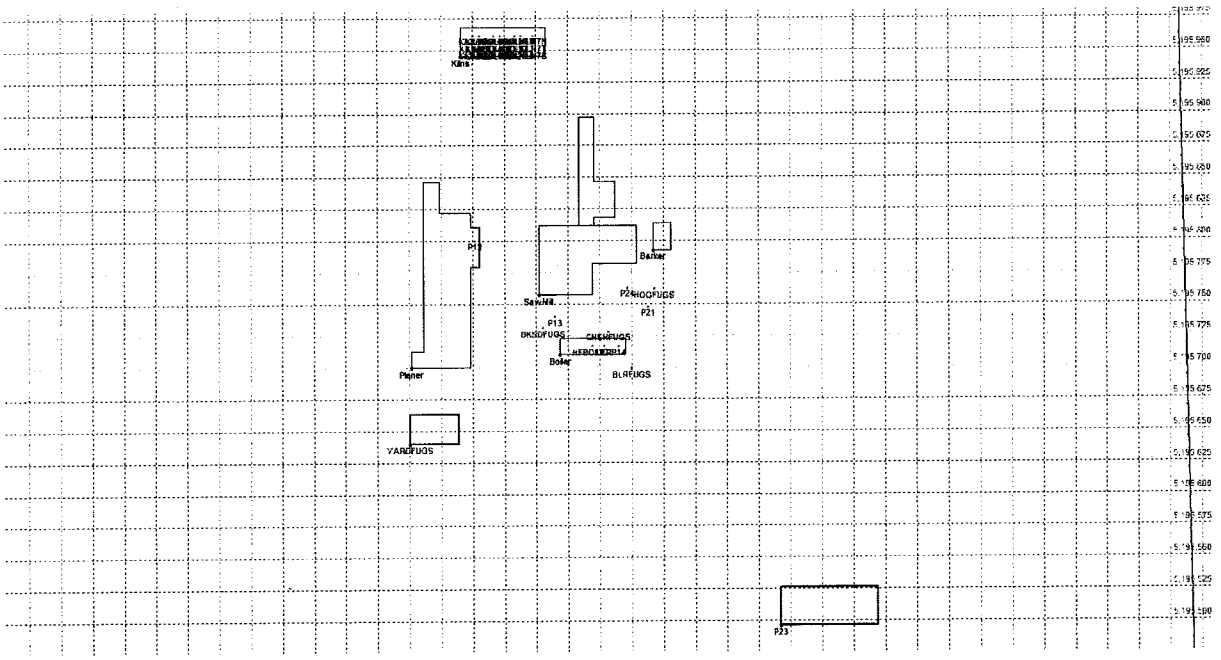
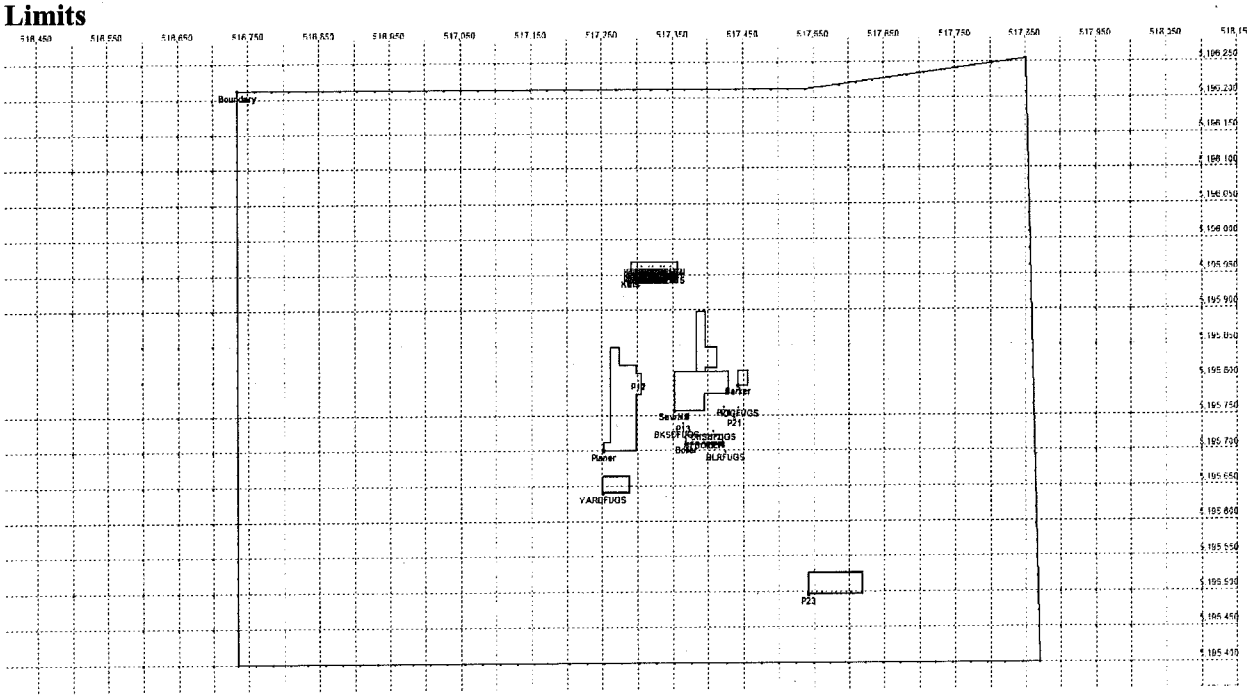


Figure 2 shows a more complete view of the facility, its property and ambient air boundary. Public access is discouraged inside the property boundary by fencing around most of the facility perimeter. Employees are trained to discourage or report unauthorized access. Dots on the figure represent the receptors nearest the public access limit. For scale, the inner receptors in this figure are spaced 25 meters apart. Facility emission sources are again shown in red. The dots outside the facility boundary represent the nearest model receptors.

Figure 2 Bennett Lumber Emission Sources, Building, and Property Boundary / Public Access Limits



5 Model Domain, Mapping, and Receptor Network

The general public is not routinely invited onsite for business. The facility does no retail selling onsite. Public access is discouraged by the industrial nature of the large facility in a rural area with few neighbors (none close), with substantial land holdings providing significant buffer from any air emissions point. The entire perimeter of the facility is fenced or gated. Employees are trained to check for and discourage public access and/or notify the facility's office of any unauthorized access. The facility layout includes private onsite roads on both sides of the river, and offers clear view of the river banks and most parts of the river from most facility activity areas.

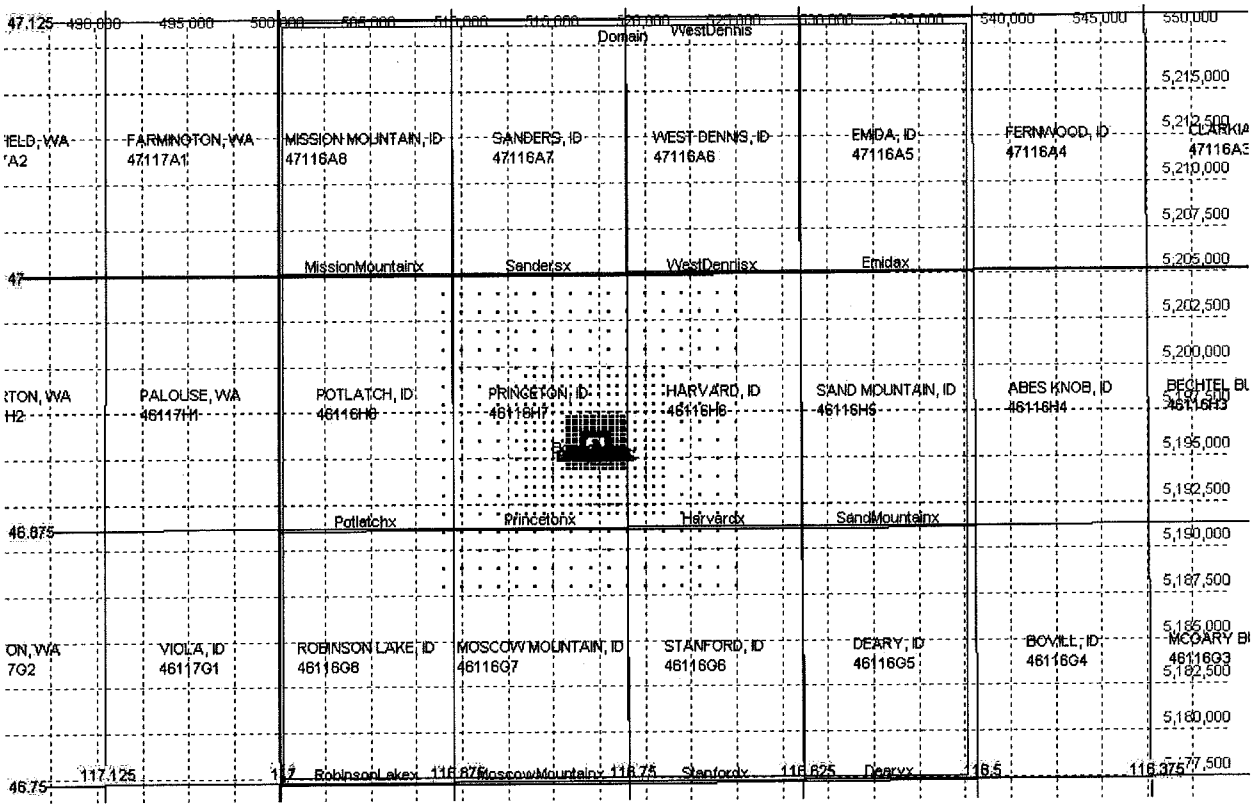
This stretch of the Palouse River is not on the Idaho Department of Lands navigable river list. Many riverside residents run cattle in the rural Palouse River valley. The river fails to meet Idaho Fish and Game statute 36-1601 requirements for a navigable river that can float 6 inch logs, other floatable commodities or be navigated by a boat. There are numerous fences across the river upstream and downstream, including at least intermittently one just beyond the downstream end of the property. Fishing in the river is generally poor; fishermen are very rare from Harvard upstream to Potlatch far downstream.

On these bases, the facility's ambient air boundary for this analysis is its fenced property boundary.

The model receptor network used in this analysis includes 25 meter grid density around the property boundary, 50 meter grid density for the first 100 meters beyond, 100 meter grid density out to 300 meters, 250 meter grid density to 1000 meters, 500 meter grid density to 3000 meters, and 1000 meter grid density out to 8 kilometers.

The model domain was calculated by the BeeLine BEEST program to conservatively include nearly the entire USGS quad for any quad that elevations meeting the AERMOD guidance requirements for inclusion based upon elevation. The AERMAP program was used to set elevations for all model buildings, source bases, and model receptors, and to process elevation and terrain data to be ready for the AERMOD analysis. The innermost portions of the model receptor network can be seen in Figure 2. Figure 3 shows the remainder of the model receptor network, the model domain (outlined in green), and the corresponding USGS topographic map areas covered.

Figure 3 Outer Receptor Network, with Boundaries and Buildings



6 Elevation Data

All elevation heights used in this modeling analysis were calculated from USGS NAD 27 7.5-degree (30m or less horizontal resolution) DEM data using the Bee-Line BEEST preprocessing system and the AERMAP program. Consistency between building base elevations on all sides and observed roof heights was verified.

7 Meteorological Data

Five years of National Weather Service data from the Spokane airport, from 1986 to 1990, was retrieved from the Lakes Environmental Web Met website, and processed via AERMET for use in this analysis. Actual information for the met data site was included in the AERMET run, along with Aledo, Bowen ratio, and surface roughness data consistent with grasslands (with average moisture levels for the Bowen ratio). The facility is in the grassy and open plains of the Potlatch River valley, below the forested valley walls and uplands.

The Spokane wind data field was rotated 45 degree wind counterclockwise rotation, as in previous IDEQ-approved ISCST3 model applications, to account for the orientation of the Potlatch River valley, flowing ESE to WNW in this vicinity as opposed to the SSW to ENE local forcing affecting the Spokane airport winds.

Consistent with Kevin Schilling of IDEQ subsequent to the IDEQ modeling protocol approval, rather than add 20% to the model results because distant meteorological data was used, IDEQ would accept modeling with a second meteorological data set. IDEQ recommended Boise meteorological data, and wind rotation as appropriate to have prevailing winds align with forcing terrain at the site. Research showed a 35

degree clockwise rotation would most appropriately reorient the prevailing NW – SE air flow from Boise with the terrain forcing in the the Palouse River valley area of the facility, which is more ESE to WNW. Modeling runs were duplicated for all analyses with this Boise meteorological data file. The higher of the two sets of results with two wind fields, in all cases from the Spokane meteorological data, were used in comparisons with applicable impact limits.

8 Land Use Classification

The model includes rural and urban algorithm options. These options affect the wind speed profile, dispersion rates, and mixing-height formula used in calculating ground-level pollutant concentrations. A protocol was developed by USEPA to classify an area as either rural or urban for dispersion modeling purposes. The classification is based on average heat flux, land use, or population density within a three-km radius from the plant site. Of these techniques, the USEPA has specified that land use is the most definitive criterion (USEPA, 1987). The urban/rural classification scheme based on land use is as follows:

> *The land use within the total area, A_0, circumscribed by a 3-km circle about the source, is classified using the meteorological land use typing scheme proposed by Auer (1978). The classification scheme requires that more than 50% of the area, A_0, be from the following land use types in order to be considered urban for dispersion modeling purposes: heavy industrial (I1); light-moderate industrial (I2); commercial (C1); single-family compact residential (R2); and multi-family compact residential (R3). Otherwise, the use of rural dispersion coefficients is appropriate.*

The Bennett Lumber Princeton facility is located in a rural area outside the small town of Princeton, surrounded by open land with very sparse development. The vast majority of the three kilometer circle would include open land featuring agricultural or forestry land uses. Site reconnaissance showed that the area A_0 exceeds the 50% urban land use criteria necessary for use of urban dispersion coefficients. Rural dispersion coefficients were therefore used in the air quality dispersion modeling, as IDEQ used or recommended for all previous facility modeling analyses.

9 Background Concentrations

The IDEQ rural / agricultural background concentrations were used for this rural area, as per IDEQ recommendation. Those values can be seen in Table 2 below.

10 Evaluation of Compliance with Standards

The ambient air quality impact limits applicable to this analysis for criteria pollutants are the National Ambient Air Quality Standards, and the IDAPA standards which match them. The maximum potential ambient concentration compared against the NAAQS for all impact analyses except the 24-hour average PM-10 was the maximum model predicted impact at any receptor in any year. For 24-hour average PM-10, the highest second maximum predicted impact at any receptor in any year was used added to the background value to calculate the maximum potential ambient concentration to compare to the applicable impact limit. For all pollutants emitted only the boiler, reported maximum impacts are the model results of a normalized emission rate of 1 lb/hr multiplied through by the maximum emission rate in the emission inventory. All reported maximum impacts occurred with the Spokane meteorological data set. Impact projections were consistently with the Boise meteorological data file.

For TAPs, the applicable standards are the IDAPA 585 AACs or the IDAPA 586 AACCs. That ambient limit applies to the maximum impact predicted at any receptor in any year for all averaging periods as a

result of proposed increases in TAP emissions.

Table 2 Ambient Impact Limits & Comparison of Predicted Impacts with Applicable Ambient Standards

Pollutant	Averaging Period	Background Conc. (µg/m³)	Modeled Worst Case Impact (µg/m³)	Max Pot. Ambient Conc. (µg/m³)	NAAQS (µg/m³) Or AAC, AACC for TAPs	Location Of Highest Model Impact	Year of Reported maximum
PM-10	24-hour	73	71.5	144.5	150	W bndery W of sawmill	1986
	Annual	26	10.6	36.6	50	E bndry E of sawmill	1990
SO2	3-hour	-	159.3	insignificant	1300	S bndry S of boiler	1990
	24-hour	-	4.0	insignificant	365	N central bndry	1990
	Annual	-	0.46	insignificant	80	E bndry E of sawmill	1990
NOx	Annual	17	4.03	21.03	100	E bndry E of sawmill	1990
CO	1-hour	-	742	insignificant	40000	1km E of E bndry	1986
	8-hour	-	215	insignificant	10000	S bndry S of boiler	1990
Acetaldehyde	Annual	-	0.048	-	0.45	N boundary	1990
Acrolein	24-hour	-	0.149	-	12.5	S bndry S of boiler	1990
Benzene	Annual	-	0.0176	-	0.12	E bndry E of sawmill	1990
Benzo a pyrene	Annual	-	0.0000109	-	0.0003	E bndry E of sawmill	1990
Carbon Tetrachloride	Annual	-	0.000189	-	0.067	E bndry E of sawmill	1990
Chloroform	Annual	-	0.000117	-	0.043	E bndry E of sawmill	1990
1,2 Dichloroethane	Annual	-	0.000122	-	0.038	E bndry E of sawmill	1990
Dichloromethane	Annual	-	0.00122	-	0.24	E bndry E of sawmill	1990
Formaldehyde	Annual	-	0.035	-	0.077	N boundary	1990
Hydrogen Chloride	24-hour	-	0.707	-	375	S bndry S of boiler	1990
2,3,7,8 tetra... dioxins	Annual	-	3.6E-11	-	2.2E-08	W bndry W of sawmill	1990
Tetrachloroethane	Annual	-	0.000159	-	0.017	E bndry E of sawmill	1990
Arsenic	Annual	-	9.2E-5	-	2.3E-04	E bndry E of sawmill	1990
Cadmium	Annual	-	1.7E-5	-	5.6E-04	E bndry E of sawmill	1990
Nickel	Annual	-	1.4E-4	-	4.2E-03	E bndry E of sawmill	1990

Maximum predicted impacts for all pollutants and averaging periods occurred with the Spokane meteorological data file, and occurred at or the property and ambient air boundary for every averaging period longer than one hour. That was likely caused by building downwash, the fairly distant boundary, and a moderate percentage of the emissions being fugitive or low loft (kilns). These maximum impact predictions are very conservative, since all emissions were modeled 8760 hours per year at maximum short term emission rates.

Criteria pollutant maximum impacts from boiler emissions calculations are shown at the bottom of the emission inventory spreadsheet worksheet BOILER. The boiler HAP maximum impacts are shown on the right side of the emission inventory spreadsheet worksheet BOILER HAPs.

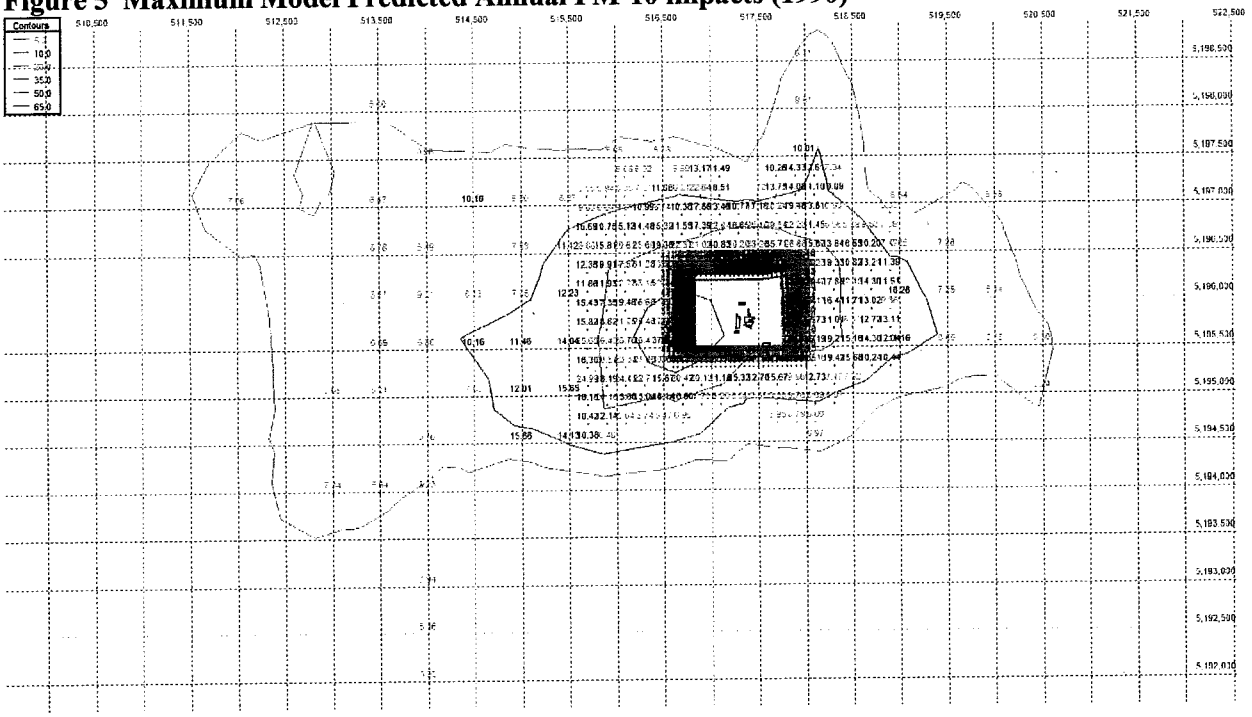
Table 2 shows that predicted maximum ambient concentrations for criteria pollutants, and maximum impacts for increases in TAP emissions, are well below all applicable impact limits. Extended calculation of TAP impacts from the normalized BOILER modeling results and comparison with applicable impact limits can be seen in the Boiler HAPs section of the application's emission inventory.

Only one pollutant, PM-10, is predicted to have ambient concentrations at half the IDEQ impact standards. Figure 4 below shows the predicted highest second maximum ambient impacts for 24-hour average PM-10 for 1990, the year with the highest second maximum impact observed during modeling. All receptors with maximum predicted impacts over 25 ug/m3 are shown.

Figure 4 Maximum Model Predicted Predicted 24- hour PM-10 impacts (1990)

Figure 5 below shows the predicted highest maximum annual average PM-10 ambient impacts for 1990, the year with the highest maximum impact observed during modeling. All receptors with maximum predicted impacts over the significant impact level (SIL) of 5 ug/m3 are shown.

Figure 5 Maximum Model Predicted Annual PM-10 impacts (1990)



4 11 Electronic Copies of the Modeling Files

Electronic copies of all input, output, and support modeling files necessary to duplicate the model results are provided on the accompanying zipped file: Bennett 0907 AQ Modeling Files.ZIP. Those files include:

BEN0907_yy_pp.ext modeling files, where
yy = year from 86 to 90 for 1986 to 1990
pp= PM_TEN, FORMALD, ACETALD, or BOILER for the pollutant modeled
ext = DTA for AERMOD input files, and .LST for AERMOD output files

The runs with Boise meteorological data have BOImet appended to the model file names.

BEN 0907.* provides the BPIP Prime input and output files

SPRyyPRI.ext meteorological data files, where
yy = year from 86 to 90 for 1986 to 1990
ext = SFC for AERMET surface data files or PFL for AERMET upper air files

All files sufficient to duplicate AERMET and AERMAP preprocessor runs.

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 NORTH HILTON, BOISE, ID 83706 · (208) 373-0502

C. L. "BUTCH" OTTER, GOVERNOR
TONI HARDESTY, DIRECTOR

September 21, 2007

VIA EMAIL

Jeff Abbott, Plant Engineer
Bennett Lumber Products, Inc.
P.O. Box 130
Princeton, Idaho 83857

RE: Facility ID No. 057-00008, BLP Princeton, Princeton
Permit to Construct Application Completeness Guidance

Dear Mr. Abbott:

On July 20, 2007, the Department of Environmental Quality (DEQ) determined that your Permit to Construct application received on June 11, 2007 for your Princeton lumber mill was incomplete. During a teleconference on September 5, 2007, we discussed the completeness issues. On September 6, 2007, a summary of your understanding of the completeness issues and proposed text was submitted by your consultant, Chris Johnson. The incompleteness issues associated with the documentation are repeated below. The text in bold indicates DEQ's expectation for BLP's incompleteness response submittal.

- **Process Description(s).** *Provide process descriptions as described in the Minor Source PTC Application Completeness Checklist, AQ-CH-P008.* This box was not checked on the copy of the checklist submitted with your application, nor were process descriptions included. The process or processes for which construction is requested must be described in sufficient detail and clarity such that a member of the general public not familiar with air quality can clearly understand the proposed project. A markup of a process flow diagram was provided as required.

  During the 9/5/07 call, BLP agreed to provide a short paragraph summarizing the overall process, and describing the proposed changes to the throughput (e.g., a 50% increase in lumber throughput, with an associated 30% increase in operating hours).

- **Equipment List.**
  - *Provide an equipment list as described in the Minor Source PTC Application Completeness Checklist, AQ-CH-P008.* This box was not checked on the copy of the checklist submitted with your application, and a complete equipment list was not provided. All equipment that will be used for which construction is requested must be described in detail. Such description includes, but is not limited to, manufacturer, model number or other descriptor, serial number, maximum process rate, proposed process rate, maximum heat input capacity, stack height, stack diameter, stack gas flowrate, stack gas temperature, etc. All equipment that will be used for which

construction/modification is requested must be clearly labeled on the process flow diagram.

Although the current DEQ process requires applicants to use the latest PTC forms, DEQ has agreed that in this instance, BLP may revise and submit their Tier I application forms to reflect the proposed changes in production. The 9/6/2007 BLP summary suggested that BLP will provide updated Title V source forms consistent with the current application for all stacks, including one form for each stack (boiler, cyclone, baghouse if not as control equipment for another process), and one for each separate kiln type. DEQ expects to receive a completed form for any emissions source that will have increased throughput and therefore increased emissions, as a result of this PTC action.

- *Provide all information requested on each application form submitted.* For example, on Form CYS, include manufacturer, model number, blower information, and design criteria. Where the post-treatment device is checked as "Other," identify the type of device. As described in the Form CYS instructions, indicate what equipment is vented to the cyclone and how material is handled and disposed of.

  Please ensure that all forms have been completely filled out, and that the information is accurate to the best of your knowledge.

- *Define acronyms that would not be familiar to the general public.* For example, MMBF/YR, BDT/YR, and on Form EU0, "ALL ST AND TR ST AND TR EMISS."

  Define all acronyms.

- **Potential to Emit.**

  - *Provide an emissions inventory (EI) as described in the Minor Source PTC Application Completeness Checklist, AQ-CH-P008.* This box was checked on the copy of the checklist submitted with your application, and reference is made in the application materials to an Excel spreadsheet, BLP 0607 EI.xls contained on a CD-ROM. On June 28, DEQ noted that the referenced CD-ROM had not been included with the application submittal, and requested that it be submitted. On June 29, 2007, DEQ received an email from BLP's consultant, Chris Johnson, which included a copy of the modeling protocol, modeling protocol approval, and modeling files. Except for a hard copy of the Boiler No. 1 spreadsheet showing emissions of hazardous air pollutants (HAPs), the emissions inventory has not been provided for this project. Please be aware that it is the applicant's responsibility to ensure that all information is provided as described in the application.

    During the course of this project, new emission factors (EFs) were identified for several hazardous air pollutants (HAPs) emitted from lumber kilns. These emission factors are higher than EFs previously used by most facilities. Information regarding these EFs, corrections to the EFs, and associated documentation was provided to Chris Johnson by email on September 5, 2007 by DEQ's Shawnee Chen. DEQ strongly advises BLP to evaluate the PTE for these HAPs using the new EFs.

BLP may want to consider requesting a limit on HAP emissions to ensure that your Princeton facility does not trigger "Plywood" MACT requirements. The emissions inventory and underlying assumptions regarding the lumber species to be processed must be provided in that case, and you must show how the estimated emissions are correlated with any requested HAP limit.

Please be advised that because the MACT trigger is set at 10 tons per year (T/yr) of any HAP and 25 T/yr of all HAPs, estimated emissions in T/yr that would round up to 10 (e.g., 9.5 T/yr) or 25 (e.g., 24.5 T/yr) will trigger MACT requirements.

Describe all assumptions made in developing the emissions inventory, e.g., a 50% increase in throughput. If different assumptions were made for different sources, please explain the differences and justify why the assumptions are appropriate. For example, if a 50% increase in production is proposed, explain why operating hours are estimated to increase by 30% (as described during the 9/5/07 teleconference).

- *Provide reference sources for all emission factors.* The modeling report refers to using emission factors from the latest source test, but does not provide sufficient information for DEQ to accurately determine which source test was used. Please provide a detailed reference for any referenced source test, and include a copy of the source test summary results. For this PTC, you do not need to provide a complete copy of the source test report.

  Identify the specific source for all emission factors, e.g., AP-42, OSU emission factors (include date), DEQ emission factor guidance (include date), source test(s).

If you wish the PTC incompleteness response to also serve as an update to your current Tier I application, please state that intention in your submittal cover letter.

If you have any questions about this letter or about the air quality permitting process, please contact me at (208) 373-0502 or cheryl.robinson@deq.idaho.gov. I will be traveling on business from September 24-27, and will be out of the office on vacation from October 1 through 12. During this time, please ensure to address any electronic submittals or emails to both Carole Zundel (carole.zundel@deq.idaho.gov) and me. If the incompleteness response is submitted prior to October 15, 2007, the PTC project will be transferred to Carole so that DEQ can ensure that the 30-day regulatory timeframe for the completeness determination is met.

Sincerely,

Cheryl A. Robinson

Cheryl A. Robinson, P.E.
Permit Writer
Air Quality Division

CR/ssaa Project No. P-2007.0107

en: Stationary Source Administrative Assistant

ec: Hudson Mann, Lewiston Regional Office
Clayton Steele, Title V Sources, Lewiston Regional Office
Darrin Mehr, AQ Division, Modeling
Kevin Schilling, AQ Division, Modeling
Carole Zundel, AQ Division, Permitting

Jeff Abbott, BLP, jeff@blpi.com
Chris Johnson, CJ Environmental, cjenv@hotmail.com

c: Reading File
Source File
Bill Rogers, Permit Coordinator

BLP September, 2007 Permit Application
Permitting and Modeling Protocol Submittals
And Permit and Modeling Completeness and Methodology Agreements with IDEQ

BLP's initial permit application was declared incomplete in July, 2007. The majority of the issues in the incompleteness letter contradicted pre-application recommendations by or agreements with IDEQ, in addition to submitting a revised modeling protocol, BLP submitted a permitting completeness protocol, and requested and received written confirmation from IDEQ on what was needed to ensure a complete application easy for IDEQ to process.

This document describes the modeling and permitting completeness protocols BLP provided during pre-application discussions, IDEQ written responses to those protocols, and BLP's responses to IDEQ comments in those IDEQ responses. The intent is to verify what IDEQ said in writing is sufficient for completeness, and how BLP met those completeness requirements.

Air Quality Modeling

BLP provided a modeling protocol to IDEQ on the first business day in September. A copy of that protocol is in the file "Bennett 0907 AQ Modeling Protocol.doc". IDEQ review of the protocol was provided by Darrin Mehr. Mr. Mehr's written protocol approval letter is included in the file "BennettLumnerPrincetonSept42007protocol[1][1].MPAL.FNL.pdf". That approval included three comments. BLP's responses to those comments are:

1. We added a column in Table 1 identifying each stack as default (vertical and unblocked), rain capped, or horizontal
2. We added in a statement I verify on public access signage verified by onsite staff
3. As noted during the original permit application, the IDEQ MI forms don't allow copying in data from spreadsheet formats like BEEST because they are programmed with multiple cells per entry, and they do not accept hand entries on my computer for some non-understandable write permission reason. Mary Anderson of IDEQ agreed in writing that we could submit the information on our own spreadsheets, which we did preciously and again here. Submitting the BeeLine BEEST file alone, as we did before and will do again, meets that requirement. We also provide Table 1 in a spreadsheet form (file MI Model Source data.xls), which was prepared by copying source data from BEEST into a spreadsheet)

Those responses definitively show how we provided the information requested by IDEQ. We tried to be extra safe by running the planned responses by Mr. Mehr within one half hour of his having sent them out. Mr. Mehr was out by then, and not scheduled to return before the planned permit application submission date.

Air Quality Permit Application Completeness

During the preparation of the June permit application, we had two lengthy pre-application meetings with IDEQ Permit Writer /Engineer Carole Zundel. The result of those

meetings was an agreement on an outline detailing the information IDEQ needed for a complete application. That outline was run by Ms. Zundel, and received her concurrence. BLP submitted an application completely consistent with that outline, which was declared incomplete for three non-modeling issues (process description and equipment list when the permitting outline said "No requirement for a process flow diagram, new process or equipment description", and lack of an emission inventory which (without BLP knowing it) never made it to Ms. Robinson despite being on the same CD as the only submitted version of other items (IDEQ equipment forms among them) that did make it to her).

To avoid the possibility of that happening again, after a pre-application meeting with IDEQ Permit Writer / Engineer Cheryl Robinson and others, BLP submitted a formal written document detailing planned methodology to respond to each item on the July, 2007 incompleteness letter. A copy of that document is included in the file "Permit Application Completeness Protocol.doc". In addition, the permit application includes a printed copy of all files submitted to support this application. We request that IDEQ permit application reviewers check that directory of submitted files or check with us before considering an incompleteness determination. IDEQ's response to the BLP Permit Completeness Protocol is attached in file "P-2007...CompletenessGuidance.9.21.2007.pdf". The section below documents how BLP responded to the recommendations in that document, and where to find the information required.

- **Process Description**
  - As noted during both rounds of pre-application meetings, no new processes or equipment are proposed, only changes in allowable throughput and boiler PM-10 emission rates on equipment and processes already permitted.
  - The description IDEQ recommended is included in the file "BLP 0907 PTC Process description.doc". The details of its contents were discussed and agreed upon with Ms. Robinson. The submitted information is consistent with those agreements.
- **Equipment Forms**
  - The current IDEQ permit application forms were updated to be as complete as possible. Those forms are available in the subdirectory "2007 IDEQ Permit Forms". All relevant and recommended information is included. BLP notes that the pre-programmed IDEQ forms had character limitations that forced abbreviations IDEQ noted, did not allow for noted explaining anything anywhere on the form, and did not allow entries in the following places (on "CS" form, for number of boiler data forms, where the correct number is one, and on the "CYS" forms, where the form did not allow entries for manufacturer or process description; manufacturer info was included under model, process information not enterable on form is available under process flow diagram, in the emission inventory).
  - To be extra safe, we took the extra time to provide duplication of the information by including AIRS / Title V equipment forms for all stacks

except the boiler. The throughput and emissions entries on those forms were updated to be consistent with the proposed permit.

- **Define acronyms**
  - This comment is made in reference to the IDEQ equipment forms. Those forms have unalterable character limits that force abbreviation, and do not allow permission to enter comments or explanation anywhere on the form. Therefore, the acronym definition is included in the emission inventory, on a worksheet entitled 'Acronyms"
- **Potential To Emit**
  - As with the initial application, a thorough emission inventory that meets or exceeds all IDEQ requirements and references all emission factors is included. The emission inventory is in the file "BLP EI 0907.xls". Entries above document BLP efforts to make sure the EI does not again get lost within IDEQ, and this time makes it to permit reviewers.
  - The "BLP Permit Application Overview and Recommendations.doc" document includes BLP's request for a permit limit for HAPs, to be safe
  - The assumptions made in preparing the emission inventory regarding % increase in throughput and hours of operation are described in the "Process description" document, and quantified in the emission inventory.
- **All AQ Modeling Issues**
  - The modeling protocol agreement should verify all issues have been resolved.

09/05/07 BLP
Preapplication Meeting Results
Permit Application Completeness Protocol

Participants:

Cheryl Robinson, IDEQ
Kevin Schilling, IDEQ
Darrin Mehr, IDEQ
Clayton Steele, IDEQ
Chris Johnson, CJ Env.
Jeff Abbott, BLP

Background

BLP and CJ Environmental requested this meeting to verify information needed for a complete PTC application. The outline for the discussion was the incompleteness letter sent by IDEQ in July, 2007 for the initial application. This document summarizes discussions and resulting recommendations during that meeting and a follow-up discussion the following day between Chris Johnson and Cheryl Robinson. **Consistent with that September 6 follow-up discussion, we request that IDEQ agree in writing that providing the information documented under each header below will ensure BLP that the pending application will not be declared incomplete for those issues.** We make this request to minimize the risk of wasted effort by BLP or IDEQ, after clearly documenting issues included in the July incompleteness letter that were provided as IDEQ recommended during pre-application meetings.

Outside Issue: HAP emission factors

Cheryl recommended that BLP become familiar with IDEQ policy on kiln and boiler emission factors, which may have been refined in letters Shawnee Chen of IDEQ sent out to industry representatives within the last week. BLP has requested a copy of that letter, will verify IDEQ policy, and make sure the EI and application are consistent with that policy.

Process Description

Discussion recommended a brief written discussion be included in the application explaining the application included no new equipment, just throughput increases and a boiler PM-10 emission limit change. Draft text to be used:

In the 0907 PTC application, the facility does not propose any new equipment or processes. The application simply requests increased throughputs through the existing permitted sawmill, dry kiln, and planer and all associated operations, and an increase in allowable particulate emission rate from the boiler.

The equipment forms enclosed document the equipment permitted and the proposed throughputs. The enclosed process flow diagram documents how the processes are coordinated at the facility. The emission inventory documents proposed emissions facility-wide. The attached modeling analysis documents the facility's compliance with all applicable impact limits.

Equipment List

The September 6 discussion between Chris Johnson and Cheryl Robinson indicated that most info requested would probably be included in the emission inventory and/or modeling protocol. Because there would probably be some things that wouldn't (ex., manufacturer's info), BLP will also provide updated Title V source forms consistent with the current application for all stacks. That will include one form for each stack (boiler, cyclone, baghouse if not as control equipment for another process), and one for each separate kiln type.

Emission Inventory

We will provide very clear documentation on what is in the submittal, which will again include a very complete emission inventory. That way the project engineer can verify they have the information we submit, and actually see the emission inventory we provide this time.

Modeling Issues

Our discussion indicated that the resubmitted modeling protocol seems to address all issues identified by IDEQ. BLP promised to verify the source test date referenced in the protocol, provide clear documentation on the conservative method employed to estimate hourly emission rates used in the model, and to reference that discussion in the emission inventory. IDEQ protocol review and final comments / approval will verify if there are any other issues to be addressed for the modeling demonstration to be complete.

List of Applicable Requirements

BLP mentioned a thorough review of applicable requirements was included in the Tier I renewal application. IDEQ mentioned inconsistency at their end, and verified that nothing more was required in this area than in the original application.

09/05/07 BLP
Preapplication Meeting

Participants:

Cheryl Robinson, IDEQ
Kevin Schilling, IDEQ
Darrin Mehr, IDEQ
Clayton Steele, IDEQ
Chris Johnson, CJ Env.
Jeff Abbott, BLP

Background

BLP and CJ Environmental requested this meeting to verify information needed for a complete PTC application. The outline for the discussion was the incompleteness letter sent by IDEQ in July, 2007 for the initial application. This document summarizes discussions and resulting recommendations. IDEQ concurrence with this summary of our discussion and documentation of the information needed to address earlier completeness issues is requested. We would prefer a written understanding because we want to make sure this application is declared complete, and the IDEQ July IDEQ incompleteness letter was inconsistent with data needs IDEQ discussed and agreed upon in pre-application meetings.

Outside Issue: HAP emission factors

Cheryl recommended that BLP become familiar with IDEQ policy on kiln and boiler emission factors, which may have been refined in letters Shawnee Chen of IDEQ sent out to industry representatives within the last week. BLP has requested a copy of that letter, will verify IDEQ policy, and make sure the EI and application are consistent with that policy.

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In the 0907 PTC application, the facility does not propose any new equipment or processes. The application simply requests increased throughputs through the existing permitted sawmill, dry kiln, and planer and all associated operations, and an increase in allowable particulate emission rate from the boiler.

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facility-wide. The attached modeling analysis documents the facility's compliance with all applicable impact limits.

Equipment List

As stated in the "BLP Permit Application Overview and Recommendations" document with the June PTC application, IDEQ had recommended in the pre-application meetings that the required forms included:

- *From Per pre-application meeting w/IDEQ: Forms included are CS, GI, CYS for each cyclone, EU0 for kilns and one for fugitives, EU5, BCE, SCE, EI-CP, PP, MI, FRA*
    - *CYS without measurements, using IDEQ EF for WP Industry*
    - *EU0 for stacks not elsewhere*
        - *One for the 7 kilns*
        - *1 summary for fugitives,*
            - *Excel EI will document fugitive calcs*
    - *BCE will reference cyclones, which use IDEQ EF for Wood Products Industry for cyclones with baghouse*
    - *SCE will say source test shows controlled emissions*

Our submittal was entirely consistent with that guidance IDEQ concurred with before the application, but the incompleteness letter was inconsistent in saying equipment forms were needed. We are still not clear what forms we should provide. The discussion indicated that IDEQ would accept the equipment forms from the Title V application, updated as necessary. We assume that would apply for all stacks and processes including the kilns. Is that in addition to or in place of the forms listed and provided with the initial application? Does IDEQ want equipment forms for each of the 17 transfer points (conveyor and truck bins drops), 10 storage areas (bins or storage piles), or solvent sources, or 10 solvent sources (with cumulative emissions of less than 0.5 ton/yr of VOCs) too? Please help us verify what information is needed here.

Please note that this information has been provided to IDEQ multiple times in the past; the only thing that is changing is the throughput and resulting emissions which are very clearly documented in the emission inventory.

Emission Inventory

We will provide very clear documentation on what is in the submittal, which will again include a very complete emission inventory. That way the project engineer can verify they have the information we submit.

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protocol, provide clear documentation on the conservative method employed to estimate hourly emission rates used in the model, and to reference that discussion in the emission inventory. IDEQ protocol review will verify if there are any other issues to be addressed for the modeling demonstration to be complete.

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BLP mentioned a thorough review of applicable requirements was included in the Tier I renewal application. IDEQ mentioned inconsistency at their end, and verified that nothing more was required in this area than in the original application.

09/05/07 BLP
Preapplication Meeting

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Kevin Schilling, IDEQ
Darrin Mehr, IDEQ
Clayton Steele, IDEQ
Chris Johnson, CJ Env.
Jeff Abbott, BLP

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Please note that this information has been provided to IDEQ multiple times in the past; the only thing that is changing is the throughput and resulting emissions which are very clearly documented in the emission inventory.

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List of Applicable Requirements

BLP mentioned a thorough review of applicable requirements was included in the Tier I renewal application. IDEQ mentioned inconsistency at their end, and verified that nothing more was required in this area than in the original application.

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
04/03/07

Please see instructions on page 2 before filling out the form.

DEQ USE ONLY
Date Received
Project Number
Payment / Fees Included? Yes ☐ No ☐
Check Number

COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER

1. Company Name	Bennett Lumber Products, Inc.		
2. Facility Name	BLP Princeton	3. Facility ID No.	057-00008
4. Brief Project Description - One sentence or less	PTC modification to increase boiler PM-10 emission limit and increase throughput through facility limited by kiln throughput limit		

PERMIT APPLICATION TYPE

5. ☐ New Facility ☐ New Source at Existing Facility ☐ Unpermitted Existing Source
☒ Modify Existing Source: Permit No.: Tier II/PTC No. T2-010208 Date Issued: 1/13/05
☒ Required by Enforcement Action: Case No.: E-060014

6. ☒ Minor PTC ☐ Major PTC

FORMS INCLUDED

Included	N/A	Forms	DEQ Verify
☒	☐	Form GI – Facility Information	☐
☒	☐	Form EU0 – Emissions Units General	☐
☐	☒	Form EU1 - Industrial Engine Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU2 - Nonmetallic Mineral Processing Plants Please Specify number of forms attached: _____	☐
☐	☒	Form EU3 - Spray Paint Booth Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU4 - Cooling Tower Information Please Specify number of forms attached: _____	☐
☒	☐	Form EU5 – Boiler Information Please Specify number of forms attached: _____	☐
☐	☒	Form HMAP – Hot Mix Asphalt Plant Please Specify number of forms attached: _____	☐
☐	☒	Form CBP - Concrete Batch Plant Please Specify number of forms attached: _____	☐
☒	☐	Form BCE - Baghouses Control Equipment	☐
☒	☐	Form SCE - Scrubbers Control Equipment	☐
☒	☐	Forms EI-CP1 - EI-CP4 - Emissions Inventory– criteria pollutants (Excel workbook, all 4 worksheets)	☐
☒	☐	PP – Plot Plan	☐
☒	☐	Forms MI1 – MI4 – Modeling (Excel workbook, all 4 worksheets)	☐
☒	☐	Form FRA – Federal Regulation Applicability	☐

DEQ 2007 App Forms

Instructions for Form CS

This form acts as a cover sheet for the Permit to Construct application, providing DEQ with basic information regarding the company and the proposed permitting action. This form helps DEQ efficiently determine whether the application is administratively complete. This form also provides the applicant with a list of forms available to aid the applicant to successfully submit a complete application.

Company Name, Facility Name, and Facility ID Number

1-3. Provide the name of your company, the name of the facility (if different than company name), and the facility identification (ID) number (Facility ID No.) in the boxes provided. The facility ID number is also known as the AIRS number or AIRS/AFS number (example: 095-00077). If you already have a permit, the facility ID number is located in the upper right hand corner of the cover page. The facility ID number must be provided unless your facility has not received one, in which case you may leave this box empty. **Use these same names and ID number on all forms**. This is useful in case any pages of the application are separated.

4. Provide a brief description of this permitting project in one sentence or less. Examples might be "Install/construct a new boiler" or "Increase the allowable process throughput." **This description will be used by DEQ as a unique identifier for this permitting project, in conjunction with the name(s) and ID number referenced in 1-3.** You will need to put this description, using the exact same words, on all other forms that are part of this project application. This is useful in case any pages of the application are separated.

Permit Application Type

5. Provide the reason you are submitting the permit application by checking the appropriate box (e.g., a new facility being constructed, a new source being constructed at an existing facility, an unpermitted existing source (as-built) applying for a permit for the first time, a permitted source to be modified, or the permit application is the result of an enforcement action, in which case provide the case number). If you are modifying an existing permitted source, provide the number and issue date of the most recent permit.

6. Indicate if the application is a minor permit to construct application or a major permit to construct application by checking the appropriate box (e.g., major PTC or minor PTC). If the permit to construct application is for a major new source or major modification, you must ensure that all necessary information required by IDAPA 58.01.01.202, and .204, or .205, as applicable, is provided.

Forms Included

Check the "Included" box for each form included in this permit to construct application. If there are multiples of a form for multiple units of that type, check the box and fill in the number of forms in the blank provided.

The "N/A" box should only be checked if the form is absolutely unnecessary to complete the application. Additional information may be requested.

When complete, submit all application forms and any required fees to:

Air Quality Program Office – Application Processing
Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706-1255

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/26/07

Please see instructions on page 2 before filling out the form.

All information is required. If information is missing, the application will not be processed.

IDENTIFICATION	
1. Company Name	Bennett Lumber Products
2. Facility Name (if different than #1)	BLP Princeton
3. Facility I.D. No.	057-00008
4. Brief Project Description:	PTC modification for increased boiler PM-10 emission rate and increased throughput controlled by kiln throughput limit. No new equipment
FACILITY INFORMATION	
5. Owned/operated by: (√ if applicable)	☐ Federal government ☐ County government ☐ State government ☐ City government
6. Primary Facility Permit Contact Person/Title	Jeff Abbott, Plant Engineer
7. Telephone Number and Email Address	208 875-1121, jeff@blpi.com
8. Alternate Facility Contact Person/Title	Chris Johnson, CJ Environmental, environmental consultant
9. Telephone Number and Email Address	208 628-4036, cjenv@hotmail.com
10. Address to which permit should be sent	Bennett Lumber Products, Inc. PO Box 130
11. City/State/Zip	Princeton, Idaho 83857
12. Equipment Location Address (if different than #10)	BLP plant S of Hwy 6
13. City/State/Zip	Princeton, Idaho 83857
14. Is the Equipment Portable?	☐ Yes ☒ No
15. SIC Code(s) and NAISC Code	Primary SIC: 2421 Secondary SIC (if any): NAICS:
16. Brief Business Description and Principal Product	Sawmill producing dimensional lumber
17. Identify any adjacent or contiguous facility that this company owns and/or operates	None
PERMIT APPLICATION TYPE	
18. Specify Reason for Application	☐ New Facility ☐ New Source at Existing Facility ☐ Unpermitted Existing Source ☒ Modify Existing Source: Permit No.: Tier II/PTC No. T2-010208 Date Issued: 1/13/05 ☐ Permit Revision ☐ Required by Enforcement Action: Case No.:

CERTIFICATION

IN ACCORDANCE WITH **IDAPA 58.01.01.123** (RULES FOR THE CONTROL OF AIR POLLUTION IN IDAHO), I CERTIFY BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION IN THE DOCUMENT ARE TRUE, ACCURATE, AND COMPLETE.

19. Responsible Official's Name/Title	Frank Bennett, Owner	
20. RESPONSIBLE OFFICIAL SIGNATURE		Date:

21. ☒ Check here to indicate you would like to review a draft permit prior to final issuance.

Instructions for Form GI

This form is used by DEQ to identify a company or facility, equipment locations, and personnel involved with the permit application. Additional information may be requested.

1 – 4. Please fill in the same company name, facility name (if different), facility ID number, and brief project description as on Form CS. This is useful in case any pages of the application are separated.

5. Indicate whether the facility is owned by a government entity.

6. Name of the primary person who should be contacted regarding this permit.

7. Telephone number and e-mail address of person listed in 6.

8. Name of the person who should be contacted if the person listed in 6 is not available.

9. Telephone number and e-mail address of person listed in 8.

10 - 11. Address to which DEQ should mail the permit.

12 - 13. Physical address at which the equipment is located (if different than 10).

14. If the equipment is portable (such as an asphalt plant), identify by marking "yes." If there are other locations where the portable equipment will be used, attach a Portable Equipment Relocation Form (PERF) to list those locations. An electronic copy of the PERF can be obtained from the DEQ website http://www.deq.idaho.gov/air/permits_forms/forms/ptc_relocation.pdf (or http://www.deq.idaho.gov/air/permits_forms/forms/ptc_relocation.doc for Word format). **Important note:** In addition to being submitted with this PTC application, a PERF must also be completed and filed at DEQ at least 10 days in advance of relocating any of the equipment covered in this application.

15. Provide the Standard Industrial Classification (SIC) code and the North American Industry Classification System (NAICS) code for your plant. NAICS codes can be found at http://www.census.gov/epcd/naics02/naicod02.htm. If a secondary SIC code is applicable, provide it also.

16. Briefly describe the primary activity and principal product of your business. If your plant includes more than one major activity, describe the one related with the permit application.

17. Please indicate if there are any other branches or divisions of this company located within 5 miles of the address provided in 12 above on this form.

18. Check the box which describes the type of permit application.

19 - 20. Fill in the certification section with a signature, name, title and date. The certification must be signed by a responsible official (as defined in IDAPA 58.01.01.006) in accordance with IDAPA 58.01.01.123.

21. If you would like to review a draft before the final permit is issued, check this box.

Emissions Unit - General **Form EU0**

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
Bennett Lumber Products, Inc	BLP Princeton	057-00008
Brief Project Description:	PTC modification to increase boiler PM-10 emission limit and increase	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	FACILITY-WIDE FUGITIVES
2. EU ID Number:	P1-4, P8-10, P21-23, ALL ST AND TR ST AND TR EMISS
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #:PTC No. P2-050206 Date Issued: 10/05
4. Manufacturer:	N/A
5. Model:	
6. Maximum Capacity:	CONTROLLED BY KILN THROUGHPUT LIMIT, MATERIAL BAL
7. Date of Construction:	VARIES, MOST DATE BACK >10 YRS
8. Date of Modification (if any)	NONE RECENTLY
9. Is this a Controlled Emission Unit?	☒ No ☐ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:			
11. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☐ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☐ No (If Yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency						

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	8760 HRS/YR
19. Maximum Operation	KILNS 157585MMBF/YR CUMULATIVELY, MATERIAL BALANCE

REQUESTED LIMITS

20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	
☒ Production Limit(s):	157585 MMBF/YR CUMULATIVELY THROUGH THE KILNS
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☐ Other:	
21. Rationale for Requesting the Limit(s):	SETS THROUGHPUT FOR ALL OTHER PROCESSES VIA MATERIAL BALANCE

Instructions for Form EU0

This form provides DEQ with information about an emissions unit. An emissions unit is the equipment or process that generates emissions of regulated air pollutant(s). This form is used by the permit writer to become familiar with the emissions unit (EU). This form is also used by DEQ to identify the control equipment and the emission point (stack or vent) used for the emission unit(s) proposed in this permit application. This form also asks for supporting documents to verify stated control efficiencies and details about the emission point. Additional information may be requested.

Please put the same company name, facility name (if different), facility ID number, and brief project description as on Form CS in the boxes provided. This is useful in case any pages of the application get separated.

1. Provide the name of the emissions unit (EU), such as "Union boiler," etc. Use the exact same name for this EU throughout all the application forms. A separate EU0 form is required for each emissions unit.
2. Provide the identification (ID) number of the EU. It can be any unique identifier you choose; however, this ID number should be unique to this EU and should be used consistently throughout this application and all other air quality permit applications (e.g., operating permit application) to identify this EU.
3. Indicate the type of EU by checking the appropriate box (e.g., a new source to be constructed, an unpermitted existing source (as-built) applying for the first time, or an existing permitted source to be modified). If the EU is being modified, indicate on the form the most recent permit issued for the EU.
4. Provide the manufacturer's name for the EU. If the EU is custom-designed or homemade, indicate so.
5. Provide the model number of the EU. If the EU is custom-designed or homemade, indicate so.
6. Provide the maximum capacity of the EU. For example, a boiler's capacity may be in MMBtu/hr in terms of heat input of natural gas; an assembly line capacity may be in parts produced per day. Capacity should be based on a rated nameplate or as stated in the manufacturer's literature.
7. The date of construction is the month, day, and year in which construction or modification was commenced.

   Definitions:

   Construction fabrication, erection, or installation of an affected facility.

   Commenced an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

   Modification any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted to the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) to the atmosphere not previously emitted.
8. If the EU has been or will be modified, provide the month, day, and year of the most recent or future modification as defined in IDAPA 58.01.01.006.55.
9. Indicate if emissions from the EU are controlled by air pollution control equipment. If the answer is yes, complete the next section. If the answer is no, go to line 18.
10. Provide the name of the air pollution control equipment (e.g., wet scrubber) and the control equipment's identification number. This identification number should be unique to this air pollution control equipment and should be used consistently throughout this and all other air quality permit applications (e.g., operating permit application) to identify this air pollution control equipment.

11. Provide the date the air pollution control equipment was installed.
12. If the air pollution control equipment has been modified, provide the date of the modification.
13. Provide the name of the manufacturer and the model number for the air pollution control equipment.
14. If this air pollution control equipment controls emissions from more than this EU, provide the identification number(s) of the other EU(s).
15. Indicate if this air pollution control equipment operates on a schedule different from the EU(s) it controls.
16. Indicate if the air pollution control manufacturer guarantees the control efficiency of the control equipment. If the answer is yes, attach the manufacturer's guarantee and label it with the air pollution control equipment identification number. Indicate the control efficiency for the target pollutant(s).
17. If the control efficiency of the air pollution control equipment is not guaranteed, attach the design specifications and any performance data to support the control efficiency stated in part 16. Label the supporting documentation with the air pollution control equipment identification number.
18. Provide the projected actual operating schedule for the emission unit in hours/day, hours/year, or other.
19. Provide the maximum operating schedule for the emission unit in hours/day, hours/year, or other.
20. If you are requesting to have limits placed on this EU, mark "Yes." Then, check the applicable requested limit(s) and provide the limit(s). For example, production limits may be in terms of parts produced per year, material usage limits may be in gallons per day.
21. Please provide the reason you are requesting limits, if any. This helps DEQ and the applicant determine whether the limits are necessary, and if they will accomplish the desired purpose. Provide supporting documentation (calculations, modeling assessment, regulatory review, etc.) for each limit requested.

Emissions Unit - General **Form EU0**

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
Bennett Lumber Products, Inc	BLP Princeton	057-00008
Brief Project Description:	P15 Kiln 1 form. PTC modification to increase boiler PM-10 emission limit and	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	KILN 1
2. EU ID Number:	P15
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #:P-050206 Date Issued: 10/6/05
4. Manufacturer:	MOORE
5. Model:	73' DOUBLE TRACK VENTED VIA HUMIDITY CONTROL LIDS
6. Maximum Capacity:	APPROX 200MBF/CHARGE
7. Date of Construction:	BEFORE 1980
8. Date of Modification (if any)	NONE ON EQUIPMENT, THROUGHPUT LIMITS HAVE EVOLVED
9. Is this a Controlled Emission Unit?	☒ No ☐ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:			
11. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☐ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☐ No (If Yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency						

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	8300 HRS/YR
19. Maximum Operation	8500 HRS?YR

REQUESTED LIMITS

20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	NONE
☒ Production Limit(s):	157585 MMBF/YR CUMULATIVELY THROUGH THE KILNS
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☐ Other:	
21. Rationale for Requesting the Limit(s):	SETS THROUGHPUT FOR ALL OTHER PROCESSES VIA MATERIAL BALANCE

Emissions Unit - General **Form EU0**

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
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Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
Bennett Lumber Products, Inc	BLP Princeton	057-00008
Brief Project Description:	P16 Kiln 2 form. PTC modification to increase boiler PM-10 emission limit and	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	KILN 2
2. EU ID Number:	P16
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #:P-050206 Date Issued: 10/6/05
4. Manufacturer:	MOORE
5. Model:	73' DOUBLE TRACK VENTED VIA HUMIDITY CONTROL LIDS
6. Maximum Capacity:	APPROX 200MBF/CHARGE
7. Date of Construction:	BEFORE 1980
8. Date of Modification (if any)	NONE ON EQUIPMENT, THROUGHPUT LIMITS HAVE EVOLVED
9. Is this a Controlled Emission Unit?	☒ No ☐ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:			
11. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☐ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☐ No (If Yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency						

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	8300 HRS/YR
19. Maximum Operation	8500 HRS?YR

REQUESTED LIMITS

20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	NONE
☒ Production Limit(s):	157585 MMBF/YR CUMULATIVELY THROUGH THE KILNS
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☐ Other:	
21. Rationale for Requesting the Limit(s):	SETS THROUGHPUT FOR ALL OTHER PROCESSES VIA MATERIAL BALANCE

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PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
Bennett Lumber Products, Inc	BLP Princeton	057-00008
Brief Project Description:	P17 Kiln 3 form. PTC modification to increase boiler PM-10 emission limit and	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	KILN 3
2. EU ID Number:	P17
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #:P-050206 Date Issued: 10/6/05
4. Manufacturer:	MOORE
5. Model:	73' DOUBLE TRACK VENTED VIA HUMIDITY CONTROL LIDS
6. Maximum Capacity:	APPROX 100MBF/CHARGE
7. Date of Construction:	BEFORE 1980
8. Date of Modification (if any)	NONE ON EQUIPMENT, THROUGHPUT LIMITS HAVE EVOLVED
9. Is this a Controlled Emission Unit?	☒ No ☐ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:			
11. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☐ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☐ No (If Yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency						

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	8300 HRS/YR
19. Maximum Operation	8500 HRS?YR

REQUESTED LIMITS

20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	NONE
☒ Production Limit(s):	157585 MMBF/YR CUMULATIVELY THROUGH THE KILNS
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☐ Other:	
21. Rationale for Requesting the Limit(s):	SETS THROUGHPUT FOR ALL OTHER PROCESSES VIA MATERIAL BALANCE

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PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
Bennett Lumber Products, Inc	BLP Princeton	057-00008
Brief Project Description:	P18 Kiln 4 form. PTC modification to increase boiler PM-10 emission limit and	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	KILN 4
2. EU ID Number:	P18
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #:P-050206 Date Issued: 10/6/05
4. Manufacturer:	LUMBER SYSTEMS INC
5. Model:	73' DOUBLE TRACK VENTED VIA HUMIDITY CONTROL LIDS
6. Maximum Capacity:	APPROX 200MBF/CHARGE
7. Date of Construction:	BEFORE 1980
8. Date of Modification (if any)	NONE ON EQUIPMENT, THROUGHPUT LIMITS HAVE EVOLVED
9. Is this a Controlled Emission Unit?	☒ No ☐ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:			
11. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☐ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☐ No (If Yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency						

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	8300 HRS/YR
19. Maximum Operation	8500 HRS?YR

REQUESTED LIMITS

20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	NONE
☒ Production Limit(s):	157585 MMBF/YR CUMULATIVELY THROUGH THE KILNS
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☐ Other:	
21. Rationale for Requesting the Limit(s):	SETS THROUGHPUT FOR ALL OTHER PROCESSES VIA MATERIAL BALANCE

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
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Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
Bennett Lumber Products, Inc	BLP Princeton	057-00008
Brief Project Description:	P19 Kiln 5 form. PTC modification to increase boiler PM-10 emission limit and	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	KILN 5
2. EU ID Number:	P19
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #:P-050206 Date Issued: 10/6/05
4. Manufacturer:	LUMBER SYSTEMS INC
5. Model:	73' DOUBLE TRACK VENTED VIA HUMIDITY CONTROL LIDS
6. Maximum Capacity:	APPROX 200MBF/CHARGE
7. Date of Construction:	BEFORE 1980
8. Date of Modification (if any)	NONE ON EQUIPMENT, THROUGHPUT LIMITS HAVE EVOLVED
9. Is this a Controlled Emission Unit?	☒ No ☐ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:			
1. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☐ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☐ No (If Yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency						

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	8300 HRS/YR
19. Maximum Operation	8500 HRS?YR

REQUESTED LIMITS

20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	NONE
☒ Production Limit(s):	157585 MMBF/YR CUMULATIVELY THROUGH THE KILNS
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☐ Other:	
21. Rationale for Requesting the Limit(s):	SETS THROUGHPUT FOR ALL OTHER PROCESSES VIA MATERIAL BALANCE

Emissions Unit - General **Form EU0**

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
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Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
Bennett Lumber Products, Inc	BLP Princeton	057-00008
Brief Project Description:	P20 Kiln 6 form. PTC modification to increase boiler PM-10 emission limit and	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	KILN 6
2. EU ID Number:	P20
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #:P-050206 Date Issued: 10/6/05
4. Manufacturer:	LUMBER SYSTEMS INC
5. Model:	73' DOUBLE TRACK VENTED VIA HUMIDITY CONTROL LIDS
6. Maximum Capacity:	APPROX 200MBF/CHARGE
7. Date of Construction:	1989
8. Date of Modification (if any)	NONE ON EQUIPMENT, THROUGHPUT LIMITS HAVE EVOLVED
9. Is this a Controlled Emission Unit?	☒ No ☐ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:			
11. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☐ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☐ No (If Yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency						

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	8300 HRS/YR
19. Maximum Operation	8500 HRS/YR

REQUESTED LIMITS

20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	NONE
☒ Production Limit(s):	157585 MMBF/YR CUMULATIVELY THROUGH THE KILNS
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☐ Other:	
21. Rationale for Requesting the Limit(s):	SETS THROUGHPUT FOR ALL OTHER PROCESSES VIA MATERIAL BALANCE

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
Bennett Lumber Products, Inc	BLP Princeton	057-00008
Brief Project Description:	P25 Kiln 7 form. PTC modification to increase boiler PM-10 emission limit and	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	KILN 7
2. EU ID Number:	P25
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #:P-050206 Date Issued: 10/6/05
4. Manufacturer:	MOORE
5. Model:	73' DOUBLE TRACK VENTED VIA HUMIDITY CONTROL LIDS
6. Maximum Capacity:	APPROX 200MBF/CHARGE
7. Date of Construction:	2005
8. Date of Modification (if any)	NONE ON EQUIPMENT, THROUGHPUT LIMITS HAVE EVOLVED
9. Is this a Controlled Emission Unit?	☒ No ☐ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:			
. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☐ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☐ No (If Yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency						

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	8300 HRS/YR
19. Maximum Operation	8500 HRS/YR

REQUESTED LIMITS

20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	NONE
☒ Production Limit(s):	157585 MMBF/YR CUMULATIVELY THROUGH THE KILNS
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☐ Other:	
21. Rationale for Requesting the Limit(s):	SETS THROUGHPUT FOR ALL OTHER PROCESSES VIA MATERIAL BALANCE

DEQ AIR QUALITY PROGRAM
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Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 3 before filling out the form.

IDENTIFICATION		
Company Name: Bennett Lumber Products, Inc.	Facility Name: BLP Princeton	Facility ID No: 057-00008
Brief Project Description:	PTC modification to increase boiler PM-10 emission limit and increase	

EXEMPTION

Please see IDAPA 58.01.01.222 for a list of industrial boilers that are exempt from Permit to Construct requirements.

BOILER (EMISSION UNIT) DESCRIPTION AND SPECIFICATIONS

1. Type of Request: ☐ New Unit ☐ Unpermitted Existing Unit ☒ Modification to a Unit with Permit #: [Tier II/PTC No. T2-010208

2. Use of Boiler: ☒ % Used For Process ☐ % Used For Space Heat ☐ % Used For Generating Electricity ☐ Other:

3. Boiler ID Number: b1	4. Rated Capacity: ☐ Million British Thermal Units Per Hour (MMBtu/hr) ☒ app. 56000 1,000 Pounds Steam Per Hour (1,000 lb steam/hr)	
5. Construction Date: before 10/1/79	6. Manufacturer: Zurn	7. Model: Hog Fuel boiler
8. Date of Modification (if applicable):	9. Serial Number (if available):	10. Control Device (if any): multi-clone, scrubber **Note: Attach applicable control equipment**

FUEL DESCRIPTION AND SPECIFICATIONS

11. Fuel Type	☐ Diesel Fuel (#) (gal/hr)	☐ Natural Gas (cf/hr)	☐ Coal (unit: /hr)	☒ Other Fuels (unit: /hr)
12. Full Load Consumption Rate				4.99 BDT/hr
13. Actual Consumption Rate				up to 36302 BDT/yr
14. Fuel Heat Content (Btu/unit, LHV)				17.59 MMBtu/BDT
15. Sulfur Content wt%				0.025 lbs SOx/MMBtu
16. Ash Content wt%		N/A		approx 1%

STEAM DESCRIPTION AND SPECIFICATIONS

17. Steam Heat Content	NA	NA		1050 BTU/lb steam
18. Steam Temperature (°F)	N/A	N/A		250
19. Steam Pressure (psi)	N/A	N/A		
20. Steam Type	N/A	N/A	☐ Saturated ☐ Superheated	☒ Saturated ☐ Superheated

OPERATING LIMITS & SCHEDULE

21. Imposed Operating Limits (hours/year, or gallons fuel/year, etc.): 8760 hrs/yr, 407.34 MM lbs steam/yr

22. Operating Schedule (hours/day, months/year, etc.): 8760 hrs/yr

Instructions for Form EU5

Please refer to IDAPA 58.01.01.222 for a list of industrial boilers which are exempt from the Permit to Construct requirements.

Please fill in the same company name, facility name (if different), and facility ID number as on Form CS. This is useful in case any pages of the application are separated.

Boiler Description and Specification:

1. Indicate whether the unit is new, existing but unpermitted, or being modified.
2. Indicate the percentage of the steam used for process, space heat, generating electricity, or others.
3. Provide the boiler identification (ID) number. Each boiler in the application must have its own number. If boilers included in this permit application are not identical in make and model, fill out a separate EU5 form for each boiler. If the boilers are identical, attach a separate sheet labeled EU5A listing them by ID number and date of construction or modification. The boiler ID numbers should match the boiler ID numbers used on other construction permit applications and within this application. It can be any number. However, if you submitted an operating permit application, the numbers used for identification purposes in this application should be consistent with the ID numbers used in your operating permit application.
4. The boiler's rated capacity should be read from the boiler's nameplate or from the manufacturer's literature.
5. The date of construction of the emission unit is the date, month, and year in which construction or modification begins as defined in EU0 Form Instruction item 7.
6. Provide the name of the manufacturer of the boiler.
7. Provide the model number of the boiler. This number should be available from the nameplate of the boiler.
8. If the boiler has been or will be modified, give the date, month and year of the most recent or future modification.
9. Provide the manufacturer's serial number for this boiler, if available.
10. Provide the control device name and number if a pollution control device is attached to this emission unit. The name and number of the control device should be consistent with control equipment forms throughout the application. **Note: a separate control equipment form(s) should be attached for all applicable control equipment serving this unit.**

Fuel Description and Specifications:

11. Indicate the fuel type used by the boiler. If diesel fuel is used, you need to indicate the ranking number. If the boiler is a dual-fuel engine, please check all appropriate fuel type boxes in this row.
12. The full-load consumption rate is the fuel consumption rate at the boiler's rated capacity.
13. The actual consumption rate is the fuel consumption rate (usually daily average) under typical operational conditions.
14. Provide fuel net or lower heating value (LHV).
15. Provide the weight percentage of the sulfur content in the fuel.
16. Provide the weight percentage of the ash content in the fuel. For gaseous fuel, this information is not required.

17. Provide the steam heat content. This information is not required for gaseous or liquid fuel.

18. Provide the steam temperature in °F. This information is not required for gaseous or liquid fuel.

19. Provide the steam pressure in pound per square inch (psi). This information is not required for gaseous or liquid fuel.

20. Provide the steam type (i.e. saturated or superheated). This information is not required for gaseous or liquid fuel.

Operation Limits:

21. If any, indicate the operating limits you imposed on this boiler in the units of operating hours per year, or gallons fuel per hour, per year, etc.

22. Indicate your operation schedule for the projected maximum operation of the engine.